# (19) World Intellectual Property Organization International Bureau



### ) (1818 ) 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 1818 | 18

#### (43) International Publication Date 16 June 2005 (16.06.2005)

#### PCT

## (10) International Publication Number WO 2005/054811 A2

(51) International Patent Classification7:

**G01N** 

(21) International Application Number:

PCT/US2004/039735

(22) International Filing Date:

26 November 2004 (26.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/525,312

26 November 2003 (26.11.2003) US

(71) Applicant (for all designated States except US): SEPA-RATION TECHNOLOGY, INC. [US/US]; 1096 Rainer Drive, Altamonte Springs, FL 32714-3846 (US). (71) Applicants and

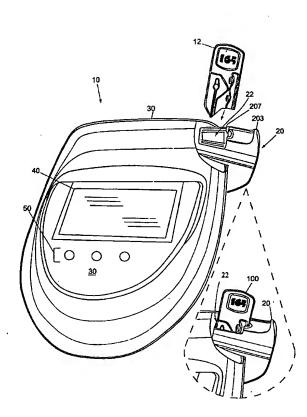
(72) Inventors (for all designated States except US): COREY, Francis, Scott [US/US]; 12655 Long Green Pike, Hydes, MD 21082 (US). LANE, Ben [US/US]; 19 Glenbrook Drive, Phoenix, MD 21131 (US). MURPHY, Brian [US/US]; 524 S. Duncan Street, Baltimore, MD 21231 (US). LIPFORD, Brian [US/US]; 1009 Longstream Court, Belair, MD 21014-2580 (US). REED, Samuel [US/US]; 3191 Plank Road, North Garden, VA 22959 (US).

(74) Agent: ROYAL W. Craig; Law Offices of Royal W. Craig, 10 N. Calvert Street, Suite 153, Baltimore, MD 21202 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR ULTRASONIC DETERMINATION OF HEMATOCRIT AND HEMOGLOBIN CONCENTRATIONS



(57) Abstract: An ultrasonic field-portalbe system for accurately measuring hematocrit (HCT) and hemoglobin concentration (HGB) in small food samples. The system includes an analyzer (10) that allows extremely accurate measurements of blood hematocrit from only one or two drops of +>>d collected in a disposable sampling device (12) that is then iserted into the analyzer (10). The system is compact enough to package into a point of care device, making it a point of care device with accuracy comparable to larger CBC lab equipment.

#### WO 2005/054811 A2

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.